

Mc Newsbriefs

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BACK STAGE

Carving A Niche In The Non-Linear Market: Emc2 Off-Line Edit System Looks Strong

BY ROBIN HOFFMAN

WASHINGTON, D.C.—The word is spreading among editors and agency producers that digital non-linear off-line editing systems can offer some quite pleasant surprises in post production. Distinguishing among the systems and keeping up with their constant redevelopment is not always so effortless, however, as illustrated by talks with proponents of the different systems—especially of the two leaders, the Avid/1 and the Emc2.

"Non-linear brings speed and creativity," said EMC president Bill Ferster. "You are able to do the same thing as in linear, but four times faster," he added.

The Emc2 is designed to manipulate both audio and video in a word-processing fashion. Both are captured at 30 frames per second, allowing the editor to make frame-accurate decisions. Source material is transferred from any tape medium to an optical disk drive, where up to four hours of SMPTE/EBU time-coded video and audio can be stored as low-resolution color images and digitized audio.

The machine does all the work by maintaining time codes and list management. When a final edit list is desired, a CMX or Grass Valley or other compatible list is produced.

Quickness is one of the system's greatest assets, the company said. Unlike linear systems, cuts do not have to be re-recorded from the master, with subsequent time code changes required. The Emc2 computer makes the changes.

Warren Shultz, president of Vancouver, Wash.-based Eyrie Productions, primarily a producer of industrial and corporate videos, likened the system to a word processor with pictures.

"The time factor is what it's all about," he said. "You move the picture and see instant results. We have found that you can cut two or three :30 spots in the time it used to take to cut one." Shultz considered both the Avid and Montage systems before deciding upon the Emc2. He was impressed by its low cost and removable disks.

According to Scott Doniger, president of New York-based Doniger Video, an affiliate of VCA Teletronics, the Emc2 is much faster than the conventional



Bill Ferster

ability to swap one visual or audio sequence for another quickly. "It has none of the cumbersome nature of linear off-line tape editing," he added.

Changes since the product's introduction at New York's Video-Expo in September 1988 have come at a quick clip. In addition to the proposed doubl-

Le Monde

COMMUNICATION

La révolution du montage virtuel

Mis au point par un ingénieur de Washington et importé en France depuis quelques semaines, le système EMC2 donne au montage vidéo la souplesse du montage cinématographique grâce à des disques optiques réenregistrables.

Un grand débat sur l'avenir de la production oppose depuis des années les partisans de l'image vidéo au tenants de l'image cinématographique. La première permet une diffusion immédiate et beaucoup moins coûteuse que le cinéma. La seconde gardait l'avantage de la qualité jusqu'à la mise au point de la télévision à haute définition.

Mais c'est la souplesse du montage qui a toujours donné au cinéma sa supériorité sur l'image électronique. La pellicule se coupe et se colle permettant de rectifier et de parfaire un montage jusqu'au dernier moment. La bande vidéo ne se coupe pas et son montage ne peut s'effectuer qu'en recopiant l'un après l'autre, sur une deuxième bande, les plans sélectionnés. Si à la fin du film, on s'aperçoit qu'une séquence doit être allongée ou raccourcie, il faut recommencer tout le montage.

Maquette du montage en mettant bout à bout tous les plans sélectionnés sans les recopier sur une bande vidéo. L'opération est effectuée par un ordinateur (PC compatible 286) qui pilote jusqu'à 7 lecteurs de vidéodisques permettant d'accéder aux images en quelques nanosecondes, imperceptibles à l'œil.

Cette technique était impraticable tant que les disques optiques coûtaient 25 000 F pièce et ne contenaient que vingt minutes d'images enregistrables une seule fois.

Fort heureusement, Sony a récemment sorti un nouveau modèle effaçable et réenregistrable jusqu'à 10 000 fois au prix de 1 500 F environ. L'astuce de Bill Ferster a consisté à compresser les images pour faire tenir sur chaque disque entre une heure et demie et quatre heures de rushes.

Certes les images ont une qualité médiocre mais il ne s'agit que d'une maquette de travail et le monteur peut toujours se référer à l'original sur le magnétoscope, piloté, lui aussi mais plus lentement, par la machine.

Le programme de EMC2 tra-

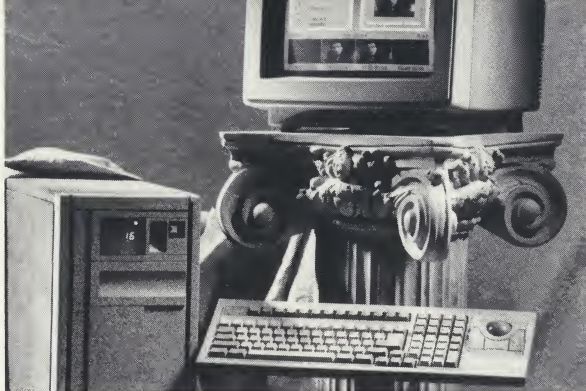
vingtaine de vignettes électroniques où il peut afficher au choix les dernières et les premières images des plans à monter, la position de deux pistes son par rapport aux images tout en montant autant de pistes son qu'au cinéma.

Il travaille ainsi avec une souplesse supérieure à celle du traditionnel chutier cinématographique. L'ordinateur garde en mémoire, sur disquettes, toutes les versions souhaitées d'un montage. Il pilote ensuite automatiquement une machine de montage vidéo traditionnelle sur magnétoscopes pour réaliser la version définitive.

Le montage virtuel va révolutionner à terme les rapports entre le film et la vidéo. Il permet déjà de sérieuses économies sur les productions électroniques en réduisant le temps de montage et, donc, le coût de location des studios spécialisés.

Le système EMC2, importé des Etats-Unis par Ragnar van Leyden, monteur cinéma des films de William Klein ou Joris Ivens, est en démonstration à Paris aux studios After Movies. Le CNRS audio-





The Emc2 off-line edit system.

Up to six drives can be linked together for a maximum capacity of 24 hours. Optical discs can be recorded on the unit itself, and dissolves, wipes, freeze frames, motion memory events and straight cuts can be executed.

According to the company, plans are underway to increase picture resolution and storage capacity by twofold per disc this fall.

Easy Edits

Editing is done by scene and not time code, in a manner akin to film editing.

CMX. "It's 65 to 70 percent faster to edit on than conventional 3/4-inch off-line systems," he said.

You Cut, We Crunch

Letting the machine do the monotonous number-crunching frees editors to do what they are there to do—cut.

"It gives total creative freedom," said Joe Wiedenmayer, director of special projects at Henninger Video here. Wiedenmayer, whose background is film editing, said he appreciates the

ing...age capacity... resolution, there is also now the ability to edit an unlimited number of audio tracks in off-lining.

The new feature—called the Flat-bed Audio Style Tracks system (F.A.S.T.)—renders the system capable of performing like a six-plate flatbed film-editing table. Editors can use it to create any number of finished tracks, although only two can be heard at any given time. The full set of tracks can be mixed directly on the system into one mixed track.

Disadvantages noted by users included a too-small screen and the need for greater storage capacity and better resolution. Emc2 has promised the latter for users early fall. EMC director of marketing Nancy Umberger said the new compression board with the C3 chip that will double storage capacity and enhance resolution will be ready for users by early fall and will be in the system in time for New York Video Expo in September.

The main competition for the Emc2 is the Avid. Ferster noted that the Avid system is hard-disc-based, and only one job can be worked on at a time. Other competition between the two exists in the realm of cost: A basic Emc2 system goes for approximately \$36,000, while a full-blown Avid/1 Media Composer (as reported in *Back Stage*, May 4, p. 1) costs \$80,000.

NAB™ DAILY NEWS BROADCASTERS

Editing Machines Corp. Has 30-Frame Capability on EMC2 Editing Systems

Editing Machines Corporation (booth 6106) now has a 30-frame for its EMC2 digital, offline editing system. The ability to see every frame will give producers random access, the firm said.

The EMC2 was the first digital, nonlinear, offline editing system on the market and adds speed and creativity to offline editing, according to EMC. Original source material containing video and two audio channels is recorded on the EMC2's re-recordable and removable optical disks. Up to 24 hours of source material can be edited, trimmed and rearranged quickly and easily, with no preroll or rewind time. An industry-standard edit list is created to glide the show through on-line auto-assembly.

To achieve 30 frames per second, a high-speed digital signal processor card is added to the system. This enables the EMC2 to compress and decompress images twice as quickly as the DSP that is standard to the system.

Un ingénieur américain, Bill Ferster, vient de résoudre le problème en construisant une machine de montage virtuel sur vidéodisque. Le système EMC2 (Editing machine corporation) réalise une

vaile comme un logiciel de traitement de texte, coupe et colle les plans, simule les effets spéciaux et les sous-titres éventuels. Le monteur dispose sur son écran d'une

suel envisage l'achat d'une machine dont le prix est d'environ 350 000 francs.

JEAN-FRANÇOIS LACAN

TV TECHNOLOGY

Discovery Channel Inspired by Emc2

by Michael Payne, Editor
The Discovery Channel, Interactive Multimedia

LANDOVER, Md. When The Discovery Channel decided to enter the realm of interactive video, it looked for an off-line editing system that would match the innovation of its new venture.

The goal was to build an extensive interactive disc library culled from quality documentary programs. Our ambitious start-up phase called for the production of ten Level III (laser disc and computer software) interactive packages within the first year of operation.

A system to fit the bill

We knew that the extensive post production work required for such a project necessitated an editing system that would be more flexible and time-efficient than traditional off-line models.

USER REPORT

Editing Machines Corp.'s (EMC) Emc2 digital editor impressed us as a compact, affordable system that provides the user with a wide range of options. By replacing the tape format with optical disc, EMC virtually eliminates time-consuming reel changes and video relays. Such off-line improvements translate into substantial on-line savings.

One of the first things that attracted us to the Emc2 system was the ease with which the user can perform fairly complex operations. Some of the new features

take some getting used to, but after mastering the digital approach, tape-driven off-lines seem archaic.

By transferring source material to optical disc, the user can eliminate superfluous footage and bad takes. As much as four hours of source footage can be transferred to an optical disc (using the "frame sampling" mode), eliminating source tape mountains in the off-line work space.

Off-line "masters"

Once the material is transferred, the user simply selects the head and tail of "pulls" or log entries and adds a cor-

responding note. An existing paper log also can be easily matched to digitized source material.

Upon completion of the log, these pulls can be added to an edit list at the touch of a button. This allows the user to generate a basic EDL and off-line "master" in literally seconds.

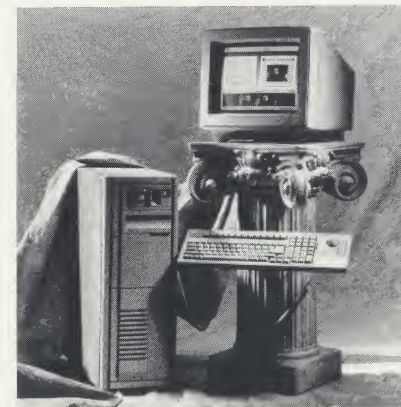
Emc2's multiple edit options permit the user to approach edits in a variety of ways. For each EDL, the editor can call up visual representations of the preceding master shot, head/tail of current selection, and the following master shot.

An audio/video "time line" helps you keep track of your tracks, which aids in the visualization of split edits and potential EDL problems. Emc2 "style" options allow you to simulate fades, dissolves and freezes.

Once upon a time

One of the more flashy Emc2 features is the "storyboard" option. With the touch of a button, your entire master is reproduced in storyboard fashion, with images for the head of every edit point represented.

Emc2's features are essential to The Discovery Channel's team approach to its interactive project. With several curriculum- and research-driven inputs to the interactive library, our interactive discs go through many stages before they are finalized. Emc2 allows us to try new combinations and produce multiple versions without the time-consuming re-edits of traditional tape-driven off-lines.



The Emc2 boasts random access editing capability.

Exporting to on-line is as simple as building an EDL. Emc2 lets you choose among CMX, Grass Valley Group and Sony formats. Copy your file to a 3 1/2-inch floppy and you're ready to on-line. Theoretically, if all of your homework is done, you can put your EDL on autopilot, only stopping for reel changes.

But in the real world (has anyone actually experienced an on-line session like that?) there are always on-line modifications to be made. What stands out about Emc2 is that it meets all of your technological needs, allowing more time to make last-minute aesthetic decisions.

Current drawbacks

Like any editing "wonder product," Emc2 does have a couple of drawbacks. The biggest limitations of Emc2 are the quality of the digitized video image and the finite amount of source material that can be stored

... (with Emc2) tape-driven off-lines seem archaic.

to a single optical disc.

Fortunately, EMC is working to improve these features. The company reportedly is developing a new compression chip that should generate twice the picture resolution and storage capacity of the current version. This new release (due in fall 1990) should make the capabilities of Emc2 even more impressive.

Emc2's current picture resolution may be disappointing to producers used to the image clarity of tape off-lines. The range of extra features that Emc2 offers, however, more than make up for this inconvenience.

For our applications, Emc2 offers a quick and efficient way to bring The Discovery Interactive Library to life. With plans to expand our production to up to 100 interactive video discs within the next five years, time saved using Emc2 should become even more important.

We have been pleased with both the system and the support from Editing Machines Corp.

AV Video®

Production and Presentation Technology

Product Close-Up

Nonlinear Off-Line Editing Made Practical

by Bill Ferster
Editing Machines Corp.

IT'S ODD THAT IN THE 100 YEARS OF making motion pictures, editing techniques have changed very little. The advent of video was supposed to make editing easier, but in fact, it introduced an element into editing pictures that hampered creativity: linearity.

In film, the editor simply pulls the sequence out of the reel and splices it elsewhere in the show. Tape editors must re-record entire sections to achieve the same result, which takes more time.

The introduction of digital disc-based systems, such as the Emc² from Editing Machines Corp., promises to bring the humanity back into editing.

Digital systems record incoming audio and video onto recordable optical discs. These discs are removable and erasable for economic operation in a production environment. Each will store up to four hours of source material. SMPTE time code is also recorded, so that CMX edit-

decision lists can be generated automatically, reducing high on-line editing costs.

In order to obtain this amount of storage time, the video signal is compressed and image quality reduced. The process involves the use of very fast digital signal processors (DSPs) to compress the video in real time. Additional microprocessor cards control the audio and discs for faster system performance. The tradeoff in quality, however, is that material can be viewed, tagged, searched and edited with lightning speed. There is no preroll, no search time and no penalty for changing your mind about an edit. **AVV**

Inmotion

An Editor's Perspective

Emc² Digital Off-Line Editing System

By Stephen Ames

The hottest area in research and development for editing systems these days is in non-linear and random access systems for off-line editing. "Random access" and "non-linear" refer to the ability to locate and string together shots in any sequence: to insert, delete, or rearrange them in any order, without the need to re-edit or dub down a generation. For the last few years, the only serious contenders in the market have offered products priced between \$100,000 and \$200,000 — well outside the budget of all but those working in feature films or episodic television. Until, that is, the recent appearance of the Emc², a digital off-line system developed by Editing Machines Corporation in Washington, DC, available for a list price of \$35,000.

The Emc² is a PC-based, true random access system that allows the preview of a program or a sequence of selected scenes. Using Emc², several versions of an entire program may be saved and reviewed. Digital recording of source material is stored on a Sony 600MB Magneto Optical disc. Currently, storage is limited to four hours of source images, though the Emc² will soon be capable of handling up to eight hours



Emc²

committing the changes to memory. When the preview sequences have been completed to satisfaction, the Emc² can use the edit decision list to assemble a rough cut of the program on videotape, by steering two VCRs to assemble a cuts-only version.

Joe Weidenmayer, director of special projects at Arlington, VA-based Henninger Video Inc., a beta test site for the Emc² has worked with the digital off-line

coming. This is less than ideal, but one of the built-in limitations of a single disc system. In a film edit, however, a dissolve is indicated with a cut and grease pencil marks, so film editors using the Emc² should not have a problem visualizing the edit.

Another current limitation is in audio capability. At this time, both channels of audio are available only at the volume at which they are entered into the system.

VIDEOGRAPHY

FACILITIES

Emc²: THE NEW EDITING EQUATION AT HENNINGER VIDEO

When I saw it I was knocked out," recalls Joe Weidenmayer, "it removes all the 'baggage' from offline editing." Weidenmayer, director of special projects at Henninger Video, in Arlington VA, is referring to his company's new Emc² digital random access offline system, made by the Washington DC-based Editing Machines Corporation. Henninger Video is the first facility in the United States to acquire the new

screen. An editor can view any scene instantly, with no pre-roll or search time, and place the scene into an edited master. Cuts and editing sequences can be added, removed, or moved at will, using simple graphic menu options. The system re-creates the edited master automatically from the edit decision list (EDL) each time it is played. Any changes in the EDL are immediately reflected in the edited master.

access editing is an exciting concept. And the price range is just about right for serious offline editing." The price tag of Henninger's Emc²—below \$30,000—includes expanded disk time and additional resolution capabilities.

Henninger points out that one of the key pluses for the Emc² is instant recall to the first frame of each shot. "All the material is instantly there. The Emc² is an organizing tool that goes beyond film editing equipment."

Henninger brought Weidenmayer aboard specifically to work with the Emc². Weidenmayer, whose background is in film, has a long list of accomplishments, including the *Frontline* series for PBS. Of the new system, he says: "It allows a disciplined editor to work as a full creative contributor to the process. He doesn't have to concentrate his efforts on being an operator or a button-pusher. It gives time to the producer to do a creative edit."

So far, Henninger says, his firm has used the Emc² on "shorter projects," such as 30-second commercials. The Emc² was recently put through its paces during the production of a McDonald's spot. "And it worked well. It did allow for film-style editing, the selection of material at random, the ability to go to the most important scenes right away," Henninger explains.

Henninger Video has also used the Emc² on long-format projects, such as a two-minute montage of sync edits with 48 cuts. "It allowed us to make edits that, because of time constraints (with other systems) we probably wouldn't have made otherwise," he says. Even longer projects are planned for the future.

Henninger also particularly raves about the simplicity of the Emc². He says one does not have to have a computer background to use it. "The system puts you into the mode of dealing with picture, sound, and motion. The hardware does not get in the way. It's a tool that allows you to be organized," he states. "It's a frame-accurate system that creates a frame-accurate list. There is no ambiguity about what your edit is. The Emc² will be part of our all-digital system. It fits well with that."



Henninger Video's Joe Weidenmayer at the Emc² editing system.

Emc² system, and the reviews there are quite enthusiastic, to say the least.

The Emc² brings digital random-access editing into an "affordable realm," says Henninger Video president Robert Henninger. "It has the appeal of larger systems like the CMX 6000, but holds costs in line." The application of random-access, disc-based technology in video editing is, of course, not unique to the Emc². What this system does that's different, however, is employ a single master optical disc, which can hold up to four hours of SMPTE/EBU time-coded video and audio. And discs can be recorded on the unit itself.

Digitized source material is displayed in color on the unit's menu

Like word processing, data can be arranged and rearranged in unlimited ways, with any number of variations of the same show storable to disk. Full traditional EDL management capabilities ensure that any editing technique or combination of video and dual audio tracks can be accomplished, allowing for split edits, dissolves, fades, and numerous switcher effects. Shots are selected visually, not by time code number, allowing the operator to focus on the creativity of the project and not the hardware of the editing process.

"When people look at the Emc² their eyes light up," says Henninger, whose facility was also the first in the Washington area with D-2 machines. "Random

Due to the limited storage capacity of the optical disc, only every other frame of video is stored. The recorded images, which appear "posterized," are similar to VHS in resolution. For greater capacity where frame-accurate editing is not critical, every third frame may be stored. Not seeing every frame is disconcerting at first, agree some editors, but it doesn't seem to affect the final product. The Emc2 stores two complete channels of audio, and tight edits are often based on audio rather than video information.

The PC-based Emc2 system houses a customized board containing several microprocessors, each individually programmable. "The advantage here over a standard PC is that these additional microprocessors can each be performing a different task at the same time," explains President Bill Ferster of Editing Machines Corporation. "This gives the Emc2 a substantial advantage in speed, as well as allowing us the ability to upgrade system capabilities."

The off-line edit session begins by transferring source material into the Emc2 system. The editor sits before a color monitor and talks to the system through a keyboard and trackball. During the transfer process, scenes or takes may be marked and log notes entered. With Emc2, the editor can use the trackball to indicate shot selections, rather than typing in selections via keyboard. An editor may disregard time code processing until the edit decision list is output onto floppy disc. Since the editor doesn't have to deal with time code, attention may be focused solely on the content of the material.

Once the real time transfer is complete, the editor is free to begin the creative process of off-line editing. Footage anywhere on the optical disc can be accessed instantly. Material may be scanned at up to 16 times normal speed or viewed frame-by-frame. Shot descriptions can be logged in and modified throughout the off-line session. The non-linear system allows for changes to be made anywhere in the program sequence, through adding, deleting, extending or shortening scenes.

The Emc2 has a variety of menu screens for logging, reviewing, editing, and managing the edit decision list. The log menu displays the selected shots and their time code locations, along with the shot descriptions entered by the editor. Along the bottom of the screen, the first frames of each shot are displayed in sequence. After designating a series of cuts, the editor can create a storyboard which displays the first frames of the selected shots in sequence across the screen.

The edit decision list menu displays the familiar time code edit list, complete with in-points, out points and edit modes, along with a bar graph representing the lengths of audio and video edits. In addition, a storyboard showing the first frame of each edit appears at the bottom of the screen. When scrolling through the edit list, the editor finds the chosen edit and the corresponding segment of the bar graph is highlighted.

The editor has full control of the edit mode, and any combination of audio and video may be selected for editing. If the editor is cutting a scene and doesn't like the result, an escape feature permits backing out of the sequence without

had to make any changes in the editing style to use the system," says the former film editor. "If anything, the Emc2 has freed me up to creatively explore. The biggest adjustment is getting used to the idea that what I'm seeing on the monitor is one big preview, and that I never have to stop and record anything."

"There is none of the usual baggage that comes with videotape editing, so the time spent in the session decreases dramatically," continues Weidenmayer. "There's no shuttle time to the end of the reel, and no need to pay attention to time code or list management. Since the Emc2 doesn't perform physical edits, and it accesses material instantly, the ideas [you want to implement] take the time. The Emc2 waits on you."

... Flexible, friendly and affordable, the Emc2 frees editors to be creative artists, with a minimum of technical headaches . . .

The system is fairly user-friendly, but a new operator will need help to become familiar with it. Users unfamiliar with the system may lock up the computer through keystroke errors. An Auto Save feature, similar to those found on word processors, may be programmed into the system to automatically save the sequence being edited onto disc without interrupting the edit session. The learning curve to "at-ease operation" of Emc2 seems to be about a week for editors with experience on computer-assisted systems. Figure two to three weeks for those who are new to the medium, estimates Weidenmayer.

At present, there are several limitations to the Emc2. The trackball really doesn't provide the kind of user interface that many video editors may like, as editing still requires primarily keyboard work. The Emc2 does not display true dissolves, but indicates them by freezing the last full frame of the outgoing shot and dissolving through to the in-

volume and then under the narration, to make manually ride the speaker volume during playback. "The ability to vary audio levels during assembly is a feature we've been asked to add to the system," acknowledges Ferster. "We have the capability to provide it in our software and we are working on solving this problem."

Editing Machines Corporation is very responsive to the feedback it receives from Emc2 users in the field. "We work very closely with our beta sites," says Ferster. "The Emc2 is placed now in Arlington, Chicago, Manhattan, London, Quebec and Ontario. The National Film Board of Canada acquired one primarily for use in documentary work. We expect very good feedback on what their special needs are, and will work to meet them."

"This is the beauty of a primarily software-based system," continues Ferster. "It gives us the capability and flexibility to rapidly improve the Emc2 as we learn what editors would like to do with it. For instance, the system could not do split edits when it was first released, but this feature is now included."

It is worth noting that the Emc2 has only been on the market since November 1988, and is rapidly improving. Though still in the beta stage of its development, the advantages of the system already outweigh its drawbacks. Flexible, friendly, and affordable, the Emc2 frees editors to be creative artists, with a minimum of technical headaches. The Emc2 fills a void in the editing process that has constrained video editors until this time. At last we can say to our clients, "You want to recut that sequence in the first scene? No problem."

Stephen Ames is a Baltimore-based independent videotape editor, whose credits include The Koppel Report and the music video Lost In America. He has worked extensively on the Emc2 digital off-line editing system at the Henninger Video beta test site, using it to complete a 25-minute project for the American Association of Retired Persons (AARP).

Editing Machines Corporation Announces Enhanced Image Quality And Increased Storage Capacity

Editing Machines Corporation has announced two major enhancements to its non-linear, digital editing system. The Emc2 has a dramatically improved image quality and increased storage capacity of source material.

The company has been able to incorporate the Discrete Cosine Transform (DCT) compression technique onto a state-of-the-art digital signal processor (DSP), resulting in images with fidelity that closely match the original. At the same time, the new board is capable of a 12:1 compression quadrupling the previous capacity. Each drive now holds four hours of raw source material. Up to six drives can be linked together making the total system capacity 24 hours.

Bill Ferster, president of Editing Machines Corporation, said he is pleased to be able to offer the improved image and increased storage capacity. "Editors will now be better able to judge critical editing decisions and at the same time, have the opportunity to work with

longer form shows."

The Emc2 transfers original source material onto newly released Sony Magneto-Optical disc drives. These disc use erasable, removable media. Unlike hard drives or WORM technology, the optical discs provide editors with a removable media which can be saved and reused thousands of times. The ability to archive material makes the Emc2 the most time efficient and cost effective off-line system on the market today.

The Emc2 is a random access system that allows an editor or producer to view scenes in any order, instantly. It offers speed and creative flexibility not found in traditional off-line editing. Raw footage can be scanned at 16 times normal speed or viewed frame by frame. As a non-linear system, changes to the beginning of a sequence can be made without losing work done beyond the edit point. The system outputs industry standard edit lists for use in any online studio.

Post

THE MAGAZINE FOR ANIMATION, AUDIO, FILM & VIDEO PROFESSIONALS

Random-access gaining acceptance

By KEN MCGORRY

ATLANTA, GA — Non-linear editing, the disk-based concept that could soon bring more offline editors home to work, is losing its illegal-alien status in the editing community. More film and video cutters are looking to random-access editing as the next big thing, and like it or not, many are keeping close tabs on developments in this realm. Soon, many feel, that gulf between what editors really want new systems to provide and how much it will cost to get it will be bridged. The random-access installed user base says it's already happening. Other editors at NAB were inspecting the

new systems to simply keep abreast of developments — and to have a brand name in mind when the new wave finally hits.

This was the second year Editing Machines Corporation attended NAB, where the new look and capabilities of the Emc2 generated a lot of interest — and sold 27 new systems at the show. "Last year we found it necessary to explain the basic concept of non-linear editing," says Nancy Umbereger, marketing director, "but this year editors were familiar with non-linear editing and came to us with specific questions."

Editing Machines Corporation

has added a number of enhancements to the system. Some of these enhancements include the ability to edit at 30 fps, setup sync rolls and group events. In addition, the Emc2 now offers advanced list management, A/B roll auto assembly, and a host of new picture-based editing features. The Emc2's new case will now hold two optical drives.

Also, an unlimited number of audio tracks, providing the options of mixing and building multiple tracks, is now a feature. The Emc2 will interface with digital audio mixers and editing systems.

BACK STAGE

TELEPRODUCTION

VCA Teletronics And DVA Offer EMC², A PC-Based Digital Off-Line System

VCA Teletronics, New York, recently entered into a co-venture with Doniger Video Associates to provide non-linear off-line editing with a new system, EMC².

According to editor Scott Doniger, Teletronics is the New York Beta site for the completely digital off-line system which is based on a personal computer. Manufactured by Editing Machines Corporation, EMC² utilizes new Sony read/write laser discs for storage and Sony disc drives.

Doniger said each Sony disc can store four hours of video,

two channels of audio, plus time code. "We've purchased three drives which enable us to store up to twelve hours of footage.

"The system also allows you to log material by names and description, and it will automatically search by whatever method you want. You can log using full pictures if you prefer visual references. A full picture storyboard feature, which also helps with referencing, lets you keep a constant visual flow of your project," he continued.